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ABSTRACT

The amount of knowledge that site and central office administrators possess about the ethical use of computer software in schools is assessed in this report. Specific questions addressed included the existence of related policies, administrators' knowledge of policies, and degree of site compliance. Four district and 10 site administrators were surveyed. A conclusion was that most districts lacked board policies or regulations governing the use and copying of software, and that central office administrators were unaware of their existence. A second finding was that districts with policies often did not comply with them. Results demonstrate the need for specific guidance in administrator education to address ethical issues in computing. An appendix contains two International Council for Computers in Education policy statements regarding the ethical use of computers by educators and software copyright policy and guidelines. (6 references) (LMI)

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Educational Computing: Ethical Issues for School Administrators and Policy Makers

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Educational Computing: Ethical Issues for School Administrators and Policy Makers

Objectives

The purpose of this study was to examine the depth of knowledge site and central office administrators have regarding the ethical use of computer software in schools. Specifically, the following research questions were identified:

1. What central office and site level policies and regulations exist which relate to ethical computing issues?
2. What working knowledge do administrators have of these policies and regulations?
3. Are these policies and regulations followed at the site level?

Theoretical Framework

The advent of computers has had a major impact on the nation's schools. Implementing computers for instructional and managerial purposes involves more than simply selecting hardware and software. Educators have a responsibility to establish and follow policies which ensure their ethical use.

The Code of Ethical Conduct for Computer-Using Educators developed by the International Council for Computers in Education (attached) addresses a wide range of computing concerns. Included are references to issues related to defining the appropriate role for using computers in the curriculum, ensuring equitable computer access, privacy, and confidentiality.

Also of concern are student, school and community-related issues regarding hardware and software (ICCE, 1987).

This study focuses on copyright and the ethical use of software because of widespread misuse and lack of information. To illustrate the serious nature of these concerns, there is "speculation that anywhere from 10 percent to 50 percent of the software in the schools has been illegally copi[illegible]nd there is solid evidence that copying occurs" (Mandell & Mandell, 1989, p. 255).

The present Code of Ethics for School Administrators (Dexheimer, 1969) does not mention computers in schools, as this code predates the era of the "smart machine" (Zuboff, 1988). Given the potential for misuse and the lack of well-established guidelines for educators, it has fallen to the local school districts and sites to develop their own policies and disseminate information for ethical computer use.

Data Source and Methodology

Participants in the initial study were district (n-4) and school site administrators (n-10). The positions represented in the sample were: vice/assistant principals, principals, and curriculum directors/coordinators. Administrators from rural (n-7), suburban (n-5), and urban (n-2) districts were included.

Each participant was surveyed using Issues in Educational Computing, an instrument designed specifically for this study. Based on a review of the literature, 15 questions were developed to assess awareness of ethical computing issues. The instrument was reviewed by a panel of experts which included professors of educational administration and district directors of curriculum.

Results

The data revealed that most (n-9) districts did not have board policies or regulations governing the use and copying of software or that site and central office administrators were unaware of the existence of these policies and regulations. It was also found that where policies or regulations existed (n-5), they were often not followed at the site or classroom level.

These results concur with the literature (Jacob & Brantley, 1987; Mandell & Mandell, 1989; Wholeben, 1984) which states that while computers have had a tremendous impact on our schools, there has been little consideration given to the nature of that impact and school personnel must be provided specific guidance to deal with the ethical computing issues of copyright, privacy, etc.

Significance

This study supports the literature by providing evidence that most school administrators are lacking in their working knowledge of ethical computer use.

Based on the results of this study, a series of ethical computing scenarios are being developed which address software copyright and other issues raised by the ICCE (1987) and correlate with the AASA Code of Ethics (Dexheimer, 1969). A follow-up study is planned which will distribute the scenarios for validation and use in administrative preparation and inservice.

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Code of Ethical Conduct for Computer-Using Educators

An ICCE Policy Statement

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Please acknowledge the ICCE Ethics and Equity Committee.

Preamble

Educators should believe in the essential importance of knowledge, morality, skill and understanding to the dignity and worth of human beings, individually and collectively. Educators develop the dignity and worth of their students through organized learning. As they do, they should defend the freedom to teach and to learn, and recognize that everybody should have an equal opportunity to learn. The duty to support these beliefs is not limited by the particular educator's role.

As an educator using computers, I work with an instrument that is changing the ways people teach and learn. I will use the computer and help learners and my colleagues use the computer only in ways that promote the dignity and worth of the learners. I accept the following code of ethics and will look to it when faced with unanticipated situations. I am willing to evaluate others and be evaluated on the basis of this code.

Principle I. Curriculum Issues

I have some responsibility for defining the roles of computers in the school curriculum and for assessing significant and likely intended and unintended consequences of those roles. In fulfilling these goals, I will:

a. Evaluate the type of computer instruction being given and to whom it is being given. The evaluation will examine planned and unplanned outcomes, including changes in the roles of teachers, students and administrators.

b. Judge where computers are and are not desirable in learning environments.

c. Strive toward integrating use of the computer, where appropriate, at all levels and throughout the curriculum.

d. Constantly evaluate the effectiveness of computer use toward achieving my goals.

e. When appropriate, provide teacher training for integrating computers into the curriculum and for the changes in curriculum that computer use brings.

f. Evaluate software covering controversial activities or using a controversial methodology or paradigm to determine its appropriateness for my students.

g. Ensure that my use of computers adequately reflects uses the student will have outside school now or in the future.

h. Ensure that the curriculum addresses topics related to information technology.

Principle II. Issues Relating to Computer Access

I support and encourage policies that extend equitable computer access to all students, and I will actively support well-reasoned programs and policies that promote such use. In fulfilling these goals, I will:

a. Strive to see that all students have equal access to computers and computer-related experiences. I will see that students have such access no matter what their academic potential, ethnicity, gender, socio-economic group, or special education status.

b. Support and encourage equity among schools in terms of availability and breadth of computer technology use.

c. Support and encourage equitable computer use among departments and subject areas.

d. Attempt to provide curriculum materials for computer use that will have meaning and appeal to all learning styles.

Principle III. Privacy/Confidentiality Issues

I have varying degrees of responsibility for the development of policy that guarantees the proper use of computerized and non-computerized information in the school's possession. In fulfilling these goals, I will:

a. Respect the privacy of others and exercise this respect when handling computer-stored information.

b. Review the use of computer systems and networks to ensure appropriate confidentiality and privacy for all.

c. Ensure that access to data bases does not exceed the limitations of use granted at the time the data were provided.

d. Teach to those I supervise the legal and social responsibilities that attend collecting, manipulating and disclosing data—in school and in society.

Principle IV. Teacher-Related Issues

Administrators and curriculum supervisors are responsible for overseeing the proper use of computers in the school setting, whether as a tool for teachers or as a multipurpose technology for students. In order to redefine the teacher's role in light of the integration of computers into classrooms, each teacher must have a minimum level of general computer literacy, including skills and knowledge about computers appropriate to the classroom setting and subject area. In addition, each teacher must accept the responsibility to practice as a professional according to the highest ethical standards. In fulfilling these goals, administrators and curriculum supervisors will:

a. Strive to obtain teacher training appropriate to needs for classroom use of computers.

b. Include planning for equitable management of computer resources.

c. Participate in evaluation of results of educational computer use.

d. Strive to provide teachers with release time for computer training to a level of competency consistent with their projected use of computers.

e. Give attention to teaching students the ethics of computer use.

f. Participate in the selection of computer use goals.

g. Strive to provide opportunities for teachers to learn about future situations when making decisions about the pace and nature of computer integration.

h. Strive for computer literacy for both teachers and students.

i. Consider likely future situations when making decisions about the pace and nature of computer integration.

j. Help teachers keep up with current trends, research and literature related to computer developments affecting education and with the curricular implications of these developments.

Principle V. Student Issues

One way to measure success is by the progress of each student toward realization of potential as a worthy and effective citizen. To help fulfill this goal, I will:

a. Help students learn about future trends and possible impacts and consequences of a computerized society.

b. Demonstrate respect for computer ethics in the school, which includes not permitting unauthorized duplication of software by my students.

c. Ensure that students have opportunities to evaluate their current and future roles and the impact their actions can have on future consequences in a computerized society.

d. Help students learn to evaluate the models which underlie simulations on which major societal decisions are made.

e. Help students examine issues that relate to computer ethics.

Principle VI. The Community

The general community, parents and educators share responsibility for creating learning environments. In fulfilling responsibilities to the community, I will:

a. Provide training to members of the educational or general community when asked and when practical.

1. Increase parental and community knowledge of possible educational goals that involve computers and of how these

goals can be realized.

2. Encourage parental involvement in long-term planning of computer use.

3. Coordinate expectations for computer use between home and school.

b. Extend the standards of respect for copyright into school/community interactions.

c. Evaluate what control donors should have over the use of hardware and software they provide.

Principle VII. School Organizational Issues

Effective and efficient use of computers in education requires organizational support. In fulfilling this responsibility, I will:

a. Participate in short- and long-range plans to introduce and manage hardware and software in schools.

b. Encourage the development and maintenance of adequate support structures within the school district and region.

c. Encourage funding for computers in schools according to a planned strategy for their integration.

Principle VIII. Software Issues

I have some responsibility for the acquisition, development and dissemination of software in the school environment. In fulfilling these responsibilities, I will:

a. Discourage and refuse to support unauthorized duplication of software by students or educators.

b. Discourage and refuse to support unauthorized duplication of printed material related to copyrighted software.

c. Evaluate the quality of software for classroom use.

d. Analyze software for equitable gender and ethnic representation.

e. Acknowledge the ethics of developers and vendors who adhere to truth in advertising and marketing, who deliver a product that serves learners' interests and needs, and who promote equity.

f. Encourage, through purchasing decisions, those vendors who make reasonable provisions for backup copies and multiple access.

g. Evaluate software in the light of the needs of prospective users and the goals of school and community.

Principle IX. Hardware Issues

I share responsibility for the quality and improvement of hardware used by educators and students. In fulfilling this responsibility, I will:

a. Set standards for the acquisition, development and dissemination of hardware used in education.

b. Respect the efforts and expertise of hardware developers and vendors, particularly when they risk extending the uses of the computer.

c. Acknowledge the ethics of developers and vendors who adhere to truth in advertising and marketing, who deliver a product that serves learners' interests and needs, who make provision for after-sale maintenance and training, and who promote equity.

d. Allow for cooperative participation of teachers and administrators in the selection of equipment.

e. Develop and communicate criteria for hardware used in education.

f. Plan hardware purchases that address longitudinal strategies for computer use in schools.

The Board of Directors of the International Council for Computers in Education approved this policy statement December, 1986.

The members of the ICCE Ethics and Equity Committee are:

Chair, Daniel T. Shere, Director of Finance, Employment Readiness Support Center
Lana Bernhardt, Principal, Kibbutz Hanita Elementary School
Larry Hannah, Professor, Sacramento State University
Deryn Watson, Computers in the Curriculum, Chelsea College
Doris Ray, Project Director, Maine Computer Consortium
Brent E. Wholeben, Professor, University of Texas at El Paso
Jo Ann Wilton, Coordinator of Computer Education, Peel Board of Education, Mississauga, Ontario

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1987 Statement on Software Copyright
An ICCE Policy Statement

Permission to reprint all or part of this document is granted. Please acknowledge the ICCE Software Copyright Committee.

Background

During 1982-83, educators, software developers, and hardware and software vendors cooperated to develop the ICCE Policy Statement on Network and Multiple Machine Software. This Policy Statement was adopted by the Board of Directors of the International Council for Computers in Education (ICCE) in 1983, and was published and distributed. It has received support from hardware and software vendors, industry associations and other education associations. One component of the Policy Statement, the "Model District Policy on Software Copyright," has been adopted by school districts throughout the world.

Now, three years later, as the educational computer market has changed and the software market has matured, ICCE has responded to suggestions that the policy statement be reviewed by a new committee and revisions be made to reflect the changes that have taken place both in the marketplace and in the schools.

The 1986-87 ICCE Software Copyright Committee is composed of educators, industry associations, hardware vendors, software developers and vendors, and lawyers. All the participants of this new Committee agree that the educational market should be served by developers and preserved by educators. To do so requires that the ICCE Policy Statement be revisited every few years while the industry and the use of computers in education are still developing.

Responsibilities

In the previous Policy Statement, lists of responsibilities were assigned to appropriate groups: educators; hardware vendors; and software developers and vendors. The suggestion that school boards show their responsibility by approving a district copyright policy was met with enthusiasm, and many districts approved a policy based on the ICCE Model Policy. The suggestion that software vendors adopt multiple-copy discounts and offer lab packs to schools was likewise well received; many educational software publishers now offer such pricing. It is therefore the opinion of this committee that, for the most part, the 1983 list of recommendations has become a *fait accompli* within the industry, and to repeat it here would be an unnecessary redundancy.

Nevertheless, the Committee does suggest that all parties involved in the educational computing market be aware of what the other parties are doing to preserve this market, and that the following three recommendations be considered for adoption by the appropriate agencies.

School District Copyright Policy

The Committee recommends that school districts approve a District Copyright Policy that includes both computer software and other media. A Model District Policy on Software Copyright is enclosed.

Particular attention should be directed to item five, recommending that *only one* person in the district be given the authority to sign software licensing agreements. This implies that such a person should become familiar with licensing and purchasing rights of all copyrighted materials.

Suggested Software Use Guidelines

In the absence of clear legislation, legal opinion or case law, it is suggested that school districts adopt the enclosed Suggested Software Use Guidelines as guidelines for software use within the district. The recommendation of Guidelines is similar to the situation currently used by many education agencies for off-air video recording. While these Guidelines do not carry the force of law, they do represent the collected opinion on fair software use for nonprofit education agencies from a variety of experts in the software copyright field.

Copyright Page Recommendations

The Committee recommends that educators look to the copyright page of software documentation to find their rights, obligations and license restrictions regarding an individual piece of software.

The Committee also suggests that software publishers use the documentation copyright page to *clearly* delineate the users' (owners' or licensees') rights in at least these five areas:

1. How is a back-up copy made or obtained, how many are allowed, and how are the back-ups to be used (e.g., *not* to be used on a second machine at the same time)?
2. Is it permissible to load the disk(s) into multiple computers for use at the same time?
3. Is it permissible to use the software on a local area network, and will the company support such use? Or is a network version available from the publisher?
4. Are lab packs or quantity discounts available from the publisher?
5. Is it permissible for the owner or licensee to make copies of the printed documentation? Or are additional copies available, and how?

ICCE—Suggested Software Use Guidelines

The 1976 U.S. Copyright Act and its 1980 Amendments remain vague in some areas of software use and its application to education. Where the law itself is vague, software licenses tend to be much more specific. It is therefore imperative that educators read the software's copyright page and understand the licensing restrictions printed there. If these uses are not addressed, the following Guidelines are recommended.

These Guidelines do not have the force of law, but they do represent the collected opinion on fair software use by nonprofit educational agencies from a variety of experts in the software copyright field.

Back-up Copy: The Copyright Act is clear in permitting the owner of software a back-up copy of the software to be held for use as an archival copy in the event the original disk fails to function. Such back-up copies are not to be used on a second computer at the same time the original is in use.

Multiple-loading: The Copyright Act is most unclear as it applies to loading the contents of one disk into multiple computers for use at the same time. In the absence of a license expressly permitting the user to load the contents of one disk into many computers for use at the same time, it is suggested that you *not* allow this activity to take place. The fact that you physically can do so is irrelevant. In an effort to make it easier for schools to buy software for each computer station, many software publishers offer lab packs and other quantity buying incentives. Contact individual publishers for details.

Local Area Network Software Use: It is suggested that before placing a software program on a local area network or disk-sharing system for use by multiple users at the same time, you obtain a written license agreement from the copyright holder giving you permission to do so. The fact that you are able to physically load the program on the network is, again, irrelevant. You should obtain a license permitting you to do so before you act.

Model District Policy on Software Copyright

It is the intent of [district] to adhere to the provisions of copyright laws in the area of microcomputer software. It is also the intent of the district to comply with the license agreements and/or policy statements contained in the software packages used in the district. In circumstances where the interpretation of the copyright law is ambiguous, the district shall look to the applicable license agreement to determine appropriate use of the software [or the district will abide by the approved Software Use Guidelines].

We recognize that computer software piracy is a major problem for the industry and that violations of copyright laws contribute to higher costs and greater efforts to prevent copying and/or lessen incentives for the development of effective educational uses of microcomputers. Therefore, in an effort to discourage violation of copyright laws and to prevent such illegal activities:

1. The ethical and practical implications of software piracy will be taught to educators and school children in all schools in the district (e.g., covered in fifth grade social studies classes).
2. District employees will be informed that they are expected to adhere to section 117 of the 1976 Copyright Act as amended in 1980, governing the use of software (e.g., each building principal will devote one faculty meeting to the subject each year).
3. When permission is obtained from the copyright holder to use software on a disk-sharing system, efforts will be made to secure this software from copying.
4. Under no circumstances shall illegal copies of copyrighted software be made or used on school equipment.
5. [Name or job title] of this school district is designated as the only individual who may sign license agreements for software for schools in the district. Each school using licensed software should have a signed copy of the software agreement.
6. The principal at each school site is responsible for establishing practices which will enforce this district copyright policy at the school level.

The Board of Directors of the International Council for Computers in Education approved this policy statement January, 1987. The members of the 1986 ICCE Software Copyright Committee are:

Sueann Ambron, American Association of Publishers
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Dan Kunz, Commodore Business Machines
Bodie Marx, Mindscape, Inc.
Kenton Pattie, International Communications Industries Association
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